State-of-the-Art SIMULATION

Story by Steve Harding

THE innovative Army Battle Command System, the Interim Brigade Combat Team's digital command-and-control "brain," allows all Army C2 systems to be blended into a single, fully integrated and interoperable whole. This provides unprecedented situational awareness for all echelons of command, from the most senior commander down to the individual soldier. And it is up to the staff of Fort Lewis' Mission Support Training Facility to ensure that the IBCT's soldiers and leaders know how to make the best use of the ABCS's capabilities.

The MSTF, a cavernous 48,000-square-foot building on Fort Lewis' main post, was originally built to house the Close Combat Tactical Trainer. Intended for use by armor-heavy forces, the CCTT was no longer necessary once Fort Lewis was selected as the home of the Army's first two IBCTs. It was a logical step to convert the available space into a dedicated ABCS training facility, said Rick Mackey, the MSTF's training manager.

Though planners spent considerable time designing the facility, its actual conversion took only about 90 days, Mackey said. The result is a highly sophisticated simulation and training center that uses more than 400 networked computers to replicate the environment in which the IBCT will operate. The MSTF is managed by the I Corps Battle Simulation Center with contracted support from the Illinois Institute of Technology Research Institute, which has subcontracted with TRW for operations, plans and training support; with SAIC for technical support; and with Cubic Applications for simulation support.

"Working together we have created an environment that simulates the IBCT's battalion and brigade tactical operations centers," Mackey said. "Our primary purpose is to train staffs how to use this new information technology within the framework of our warfighting art."

"This is knowledge-based warfare," said Ken Smith, the MSTF's contract site manager, "and what we're doing here is training soldiers and leaders how to gain and use that knowledge based on data. This will allow them to make better-informed and more timely decisions, and thus leverage technology and truly take

Huge flat-panel displays help MSTF instructors control every facet of the simulation used to train IBCT personnel in the use of the Army Battle Command System, which blends all Army command-and-control systems into a single, fully integrated whole.

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warfare to the knowledge-based level instead of the attrition-based level."

Part of the MSTF's vast main area houses several mockups of the standardized, integrated command post shelter, as well as mockups of the rigid wall shelters that, when fitted to Humvees, are the standard housing for most Army tactical command-and-control "nodes."

"Our intent is to eventually be able to put every one of the brigade's command-and-control nodes on the floor out here, using commercially procured hardware and the ABCS system software," Mackey said.

The brigade is also able to park its tactical operations center vehicles next to the MSTF and "hardwire" into the facility, which can then provide the simulation for the vehicles' systems. Using a variety of software programs, MSTF operators can simulate various operational scenarios and "pump" a wide range of information to each of the replicated or actual TOCs.

"Right now we're at the 'crawl' phase of this training strategy," Mackey said, "where the brigade's various units are in the process of developing that individual operator battle-staff and decision-maker proficiency."

Once all of the MSTF's systems are fully operational, it will offer a completely replicated command-and-control environment in which soldiers can train, Mackey said.

"The facility will be here, and the soldiers will be able to fall in on it anytime they want," he said. "And, ultimately, the units will be able to deploy anywhere in the world and link back to us. We can then assist them in planning and rehearsing their operations."

"That means the unit would be able to develop courses of action for a certain operation, and then run through those courses of action in a simulation to see what the results would be before the commander actually decides whether to execute that particular course of action," Smith said. "That takes us from being just a training facility to being a mission-support facility, a unique concept."

The MSTF is still working up to full-scale operations, Smith said, but that doesn't mean it's been idle: Since September 2000 the facility's staff has trained two of the 3rd Brigade's three infantry battalions, the field artillery battalion and the cavalry squadron.

"We're operating with the software that the interim brigade would take to war right now," Smith said, "so this is not an experiment. It's high-risk and high adventure, but we're making it work." □

A soldier operates an FBCB2 console in one of the MSTF's replicated command-post shelters. Units can also park tactical operations center vehicles next to the MSTF and "hardwire" into the facility, which provides the simulation for the vehicles' systems.

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